

**Notice of Allowability**

Application No.

09/727,324

Examiner

Callie E. Shosho

Applicant(s)

FREEMAN ET AL.

Art Unit

1714

-- **Th MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 11/14/03 and telephonic interview conducted 12/3/03.
2. ☒ The allowed claim(s) is/are 1 and 3-9.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
  - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No. \_\_\_\_\_.
  - (b) ☐ including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the Examiner.
  - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1 <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                   |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6 <input checked="" type="checkbox"/> Interview Summary (PTO-413), <u>Paper No. 12/3/04.</u> |
| 3 <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No. _____  | 7 <input type="checkbox"/> Examiner's Amendment/Comment                                      |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance          |
|   | 9 <input type="checkbox"/> Other   |

Callie E. Shosho  
Primary Examiner  
Art Unit: 1714

**Statement of Reasons for Allowance**

1. The present claims are allowable over the “closest” prior art EP 590604 for the following reasons:

EP 590604 discloses a copolymer comprising (meth)acrylates and 1-15% acid component such as (meth)acrylic acid wherein the copolymer has average particle size of 100-500 nm, glass transition temperature of 10-50 °C, and particle size distribution of 100-1000 nm.

The glass transition temperature of 10-50 °C disclosed by EP 590604 overlaps the glass transition temperature presently claimed, i.e. -20 to 25 °C, while the average particle diameter and particle size distribution disclosed by EP 590604 broadly overlap the average particle diameter, i.e. 250-400 nm, and particle size distribution, i.e. 130-450 nm, presently claimed. There are no examples in EP 590604 utilizing polymer possessing glass transition temperature, the average particle diameter, and particle size distribution as presently claimed.

It is noted that MPEP 2131.03 states that when the prior art discloses a range that touches, overlaps or is within the claimed range, such range anticipates if it discloses the claimed range with “sufficient specificity”. This portion of the MPEP further states that if the claims are directed to a narrow range, the reference teaches a broad range, and there is evidence of unexpected results within the claimed narrow range, depending on other facts of the case, it maybe reasonable to conclude that the narrow range is not disclosed with “sufficient specificity” to constitute an anticipation of the claims. The unexpected results may also render the claims unobvious.

In the present instance, the claims are directed to a narrow range with respect to the average particle diameter and particle size distribution while EP 590604 teaches a broad range

with respect to average particle size and particle size distribution. In the 1.132 declaration filed 11/14/03, there is provided evidence of unexpected results within the claimed narrow ranges.

Specifically, the declaration compares ink comprising binder within the scope of the present claims (examples 6 or 8), i.e. possessing glass transition temperature, average particle diameter, and particle size distribution as presently claimed, with ink comprising binder outside the scope of the present claims but within the scope of EP 590604 (examples 9 or 10), i.e. possessing glass transition temperature within the scope of the present claims but possessing average particle diameter and particle size distribution outside the scope of the present claims. It is shown that the binder of the present invention produces ink that is superior in terms of printer operability, i.e. the ability to print without clogging the printer head nozzles as measured by the number of nozzles firing. Thus, the declaration is successful in providing unexpected or surprising results over the cited prior art, namely, EP 590604. Further, it is noted that the declaration compares ink comprising binder within the scope of the present claims, i.e. possessing glass transition temperature, average particle diameter, and particle size distribution as presently claimed (example 1), with ink comprising binder outside the scope of the present claims but within the scope of EP 590604 (example 7), i.e. possessing average particle diameter and particle size distribution as presently claimed but possessing glass transition temperature outside the scope of the present claims. It is shown that presently claimed binder produces ink with superior highlighter resistance.

In light of the results set forth in the 1.132 declaration, it is clear that EP 590604 neither anticipates the present claims nor renders the claims obvious. That is, EP 590604 is not applicable against the present claims under either 35 USC 102 or 35 USC 103.

In light of the above, it is clear that the rejections of record are untenable and so, the present claims are passed to issue.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. **NOTE:** Attention is drawn to U.S. 6,646,024 (Beach et al.) cited on the attached PTO-892. Due to the filing date of 12/14/99, Beach et al. is not applicable against the present claims. It is noted that claim 17 of Beach et al. discloses a polymeric binder very similar to the binder presently claimed, especially the binder of present claim 8. However, while the present claims are drawn to polymeric binder (claim 1), polymer emulsion (claim 5), and ink binder (claim 8), all the claims of Beach et al. are drawn to inks comprising aqueous carrier, colorant, and polymeric binder.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 703-305-0208. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

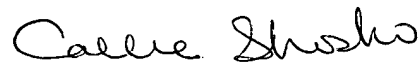
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Callie E. Shosho  
Primary Examiner  
Art Unit 1714

CS  
12/4/03